


<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/623,487	ELLSON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	K. Feggins	2861	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Preliminary amendment filed 8/13/2004.
2. ☒ The allowed claim(s) is/are 1-43.
3. ☒ The drawings filed on 18 July 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date <u>7/18/2003</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                                | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In the claims:

Claim 36, line 1, delete "44" and insert "34".

### **REASONS FOR ALLOWANCE**

2. The following is an examiner's statement of reasons for allowance: The primary reason for allowance of claims 1-37 is the inclusion of the limitations of a device for acoustically ejecting a droplet of fluid that includes means for successively providing an acoustic coupling relationship between the acoustic ejector and each reservoir, wherein in each successive acoustic coupling relationship, the acoustic ejector and a reservoir are positioned at a predetermined distance from each other with an acoustic coupling medium interposed therebetween. It is these limitations found in the claim, as they are claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for allowance of claim 38 is the inclusion of the limitations of a device for acoustically ejecting a droplet of fluid that includes means for positioning the reservoir, wherein the means for positioning the reservoir is adapted to position the reservoir relative to the acoustic ejector so that the ejector is acoustically coupled to a

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first surface of the reservoir through an acoustic coupling medium interposed between the acoustic ejector and the first surface of the reservoir. It is these limitations found in the claim, as they are claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for allowance of claim 39 is the inclusion of a method steps for depositing a plurality of fluid droplets that includes acoustically coupling a first reservoir containing a first fluid to an acoustic radiation generator; acoustically coupling a second reservoir containing a second fluid to the acoustic radiation generator; activating the acoustic radiation generator as in step (b) to eject a droplet of the second fluid from the second reservoir toward a second site on the substrate surface, and repeating steps (c) and (d) with additional reservoirs each containing a fluid until a droplet has been ejected from each reservoir, wherein the acoustic radiation generator is repositioned relative to the fluid surface between steps (c) and (d) when necessary to ensure that the acoustic radiation reaches a focal point sufficiently near the surface of the second and/or additional fluids so as to eject a droplet thereof toward the substrate surface. It is these steps found in the claim, as they are claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hadimioglu (US 6364454 B1) discloses an acoustic ink system for improving the uniformity in an acoustic ink printing system.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### **Communication With The USPTO**

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Feggins whose telephone number is 571-272-2254. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
K. Feggins  
Primary Examiner  
October 29, 2004